

Please replace paragraph [0043] with the following amended version of paragraph [0043]:

[0043] The operation of the audio PLL unit 33 described above will be described in more detail using an example of actual numeric values. When the pixel clock is 27 MHz and the division ratio (fixed) of the divider 51 is 27000, the output of the variable divider 51, in other words, the frequency of the reference frequency signal  $F_r$ , is 1 kHz ( $=27000 \text{ kHz}/27000$ ). When the frequency of the signal  $F_o$  generated by the ~~web~~-VCO unit 54 is 36.864 MHz and the sampling frequency  $F_s$  is 96 kHz, the division ratio  $P$  of the variable divider 55 is set to 1 as shown in FIG. 3 and the frequency of the output signal of the variable divider 55 is set to 36.864 MHz ( $=384 \cdot 96 \text{ kHz}$ ). The division ratio  $Q$  of the variable divider 56 is set to 6, and the frequency  $F_m$  of the output signal of the variable divider 56 is set to 6.144 MHz ( $=36.864 \text{ MHz}/6$ ). When the division ratio (fixed) of the divider 57 is 6144, the frequency of the comparison frequency signal  $F_c$  is 1 kHz ( $=6144 \text{ kHz}/6144$ ) that is equal to the frequency of the reference frequency signal  $F_r$ .

## **IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1.-8. (Canceled)

9. (Currently Amended) A digital signal transmission system comprising a transmission apparatus and a reception apparatus, the digital signal transmission system wherein characterized in that

the transmission apparatus comprises:

clock generating means for generating a first clock and a second clock;

frequency information outputting means for outputting frequency

information related to a frequency of the first clock;

first signal processing means for processing a first signal and outputting a first digital signal based on the first clock generated by the clock generating means;

second signal processing means for processing a second signal and outputting a second digital signal based on the second clock generated by the clock generating means; and

transmitting means for transmitting the second clock generated by the clock generating means, the frequency information output by the frequency information

outputting means, the first digital signal output by the first signal processing means, and the second digital signal output by the second signal processing means; and

the reception apparatus comprises:

receiving means for receiving the signals transmitted by the transmitting means;

division ratio information generating means for generating division ratio information, which represents a division ratio, based on the frequency information extracted from the signals received by the receiving means; and

clock reproducing means for reproducing the first clock based on the second clock extracted from the signals received by the receiving means and the division ratio information;

wherein

the clock ~~generating~~reproducing means generates a signal of a comparative frequency by dividing a signal of given frequency, the signal of given frequency generated based on a result of comparison of phase of a signal of reference frequency with the signal of comparative frequency, wherein the signal of reference frequency is generated by dividing the second clock with the signal of comparative frequency.

10. (Currently Amended) A digital signal transmission method for a digital signal transmission system comprising a transmission apparatus and a reception apparatus, the digital signal transmission method ~~wherein~~ characterized in that

a transmission method of the transmission apparatus comprises:

a clock generating step of generating a first clock and a second clock;  
a frequency information outputting step of outputting frequency  
information related to a frequency of the first clock;  
a first signal processing step of processing a first signal and outputting a  
first digital signal based on the first clock generated by the processing of the clock generating  
step;  
a second signal processing step of processing a second signal and  
outputting a second digital signal based on the second clock generated by the processing of the  
clock generating step; and  
a transmitting step of transmitting the second clock generated by the  
processing of the clock generating step, the frequency information output by the processing of  
the frequency information outputting step, the first digital signal output by the processing of the  
first signal processing step, and the second digital signal output by the processing of the second  
signal processing step;  
and  
a reception method of the reception apparatus comprises:  
a receiving step of receiving the signals sent by the processing of the  
transmitting step;  
a division ratio information generating step of generating division ratio  
information, which represents a division ratio, based on the frequency information extracted  
from the signals received by the processing of the receiving step; and

a clock reproducing step of reproducing the first clock based on the second clock extracted from the signals received by the processing of the receiving step and the division ratio information;

wherein

in the clock ~~generating~~reproducing step, a signal of a comparative frequency is generated by dividing a signal of given frequency, the signal of given frequency generated based on a result of comparison of phase of a signal of reference frequency with the signal of comparative frequency, wherein the signal of reference frequency is generated by dividing the second clock ~~with the signal of comparative frequency.~~

11. (Currently Amended) A transmission apparatus for transmitting a first digital signal and a second digital signal, the transmission apparatus ~~characterized by~~ comprising:

clock generating means for generating a first clock and a second clock;

frequency information outputting means for outputting frequency information related to a frequency of the first clock;

first signal processing means for processing a first signal and outputting the first digital signal based on the first clock generated by the clock generating means;

second signal processing means for processing a second signal and outputting the second digital signal based on the second clock generated by the clock generating means; and

transmitting means for transmitting the second clock generated by the clock generating means, the frequency information output by the frequency information outputting

means, the first digital signal output by the first signal processing means, and the second digital signal output by the second signal processing means.

12. (Currently Amended) A transmission method for a transmission apparatus that transmits a first digital signal and a second digital signal, the transmission method characterized by comprising:

a clock generating step of generating a first clock and a second clock;

a frequency information outputting step of outputting frequency information related to a frequency of the first clock;

a first signal processing step of processing a first signal and outputting the first digital signal based on the first clock generated by the processing of the clock generating step;

a second signal processing step of processing a second signal and outputting the second digital signal based on the second clock generated by the processing of the clock generating step; and

a transmitting step of transmitting the second clock generated by the processing of the clock generating step, the frequency information output by the processing of the frequency information outputting step, the first digital signal output by the processing of the first signal processing step, and the second digital signal output by the processing of the second signal processing step.

13. (Currently Amended) A reception apparatus for receiving a first digital signal and a second digital signal, the reception apparatus ~~characterized by~~ comprising:

receiving means for receiving the first digital signal, the second digital signal, the frequency information related to a first clock, and a signal including a second clock, all of which transmitted from a transmission apparatus;

division ratio information generating means for generating division ratio information, which represents a division ratio, based on the frequency information extracted from the signals received by the receiving means; and

clock reproducing means for reproducing the first clock based on the second clock received by the receiving means and the division ratio information generated by the division ratio information generating means, wherein said division ratio information includes a plurality of division ratios; wherein

the clock ~~generating-reproducing~~ means generates a signal of a comparative frequency by dividing a signal of given frequency by said plurality of division ratios, the signal of given frequency generated based on a result of comparison of phase of a signal of reference frequency with the signal of comparative frequency, wherein the signal of reference frequency is generated by dividing the second clock ~~with the signal of comparative frequency~~.

14. (Currently Amended) The reception apparatus according to claim 13

~~characterized in that~~ wherein the clock reproducing means further comprises:

a first dividing means for dividing the second clock extracted from a signal received by the receiving means by a first division ratio and generating a signal of a reference frequency;

phase comparing means for comparing a phase of ~~a~~ the signal of the reference frequency generated by the first dividing means, with a phase of a signal of a comparison frequency, and outputting a phase error signal;

smoothing means for smoothing the error signal output by the phase comparing means;

oscillating means for ~~oscillating~~ generating a signal of a constant frequency controlled based on an output from the smoothing means;

a second dividing means for dividing the generated signal of a constant frequency, ~~oscillated by the oscillating means~~, by a second division ratio based on the division ratio information generated by the division ratio generating means;

a third dividing means for dividing the signal generated by the second dividing means, by a third division ratio based on the division ratio information generated by the division ratio information generating means; and

a fourth dividing means for dividing the signal generated by the third dividing means, by a fourth division ratio and generating the signal of a comparison frequency.



15. (Currently Amended) A reception method for a reception apparatus that receives a first digital signal and a second digital signal, the reception method characterized by comprising:

a receiving step of receiving the first digital signal, the second digital signal, frequency information related to a first clock, and a signal including a second clock, all of which transmitted from a transmission apparatus;

a division ratio information generating step of generating division ratio information, which represents a division ratio, based on the frequency information extracted from the signals received by the processing of the receiving step; and

a clock reproducing step of reproducing the first clock based on the second clock received by the processing of the receiving step and the division ratio information generated by the processing of the division ratio information generating step, wherein said generated division ratio information includes a plurality of division ratios;

wherein

in the clock ~~generating~~ reproducing step, a signal of a comparative frequency is generated by dividing a signal of given frequency by said plurality of division ratios, the signal of given frequency generated based on a result of comparison of phase of a signal of reference frequency with the signal of comparative frequency, wherein the signal of reference frequency is generated by dividing the second clock ~~with the signal of comparative frequency.~~

16. (Currently Amended) The reception method according to claim 15 ~~characterized in that wherein~~ the clock reproducing step further comprises:

a first dividing step of dividing the second clock extracted from a signal received by the processing of the receiving step, by a first division ratio and generating a signal of a reference frequency;

a phase comparing step of comparing a phase of ~~a~~ the signal of the reference frequency generated by the processing of the first dividing step, with a phase of a signal of a comparison frequency and generating a phase error signal;

a smoothing step of smoothing the error signal generated by the processing of the phase comparing step;

an oscillating step of ~~oscillating~~ generating a signal of a constant frequency based on the signal smoothed by the processing of the smoothing step;

a second dividing step of dividing the generated signal of a constant frequency, ~~oscillated by the processing of the oscillating step,~~ by a second division ratio based on the division ratio information generated by the processing of the division ratio generating step;

a third dividing step of dividing the signal, generated by the processing of the second dividing step, by a third division ratio based on the division ratio information generated by the processing of the division ratio generating step; and

a fourth dividing step of dividing the signal, generated by the processing of the third dividing step, by a fourth division ratio and generating the signal of a comparison frequency.